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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Pierre Bonnat

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4491

8791

7590

10/05/2007

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EXAMINER

HOLTON, STEVEN E

ART UNIT

PAPER NUMBER

2629

MAIL DATE

DELIVERY MODE

10/05/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/530,946

Applicant(s)

BONNAT, PIERRE

Examiner

Steven E. Holton

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1, 3-6, and, 10 are rejected under 35 U.S.C. 102(a) as being anticipated by Felsenstein et al. (USPN: 6421617), hereinafter Felsenstein.

Regarding claim 1, Felsenstein discloses a method of controlling a computer system comprising "receiving a plurality of input values from a plurality of fluid current sensors (Fig. 1, elements 102; col. 4, lines 15-31); and using the input values and gradient values between the input values to control an action of the computer system (Fig. 4 shows various calculations that can be performed on the fluid sensors; col. 9, line 34 – col. 10, line 7 describe different calculations including measurements from the sensors, differences between sensors, gradients with respect to all of the sensors, average values, and other calculations)."

Regarding claim 3, Felsenstein discloses "wherein the input values are compared with a predefined threshold value to determine the control of the computer system (col. 10, lines 30-37).

Regarding claim 4, Felsenstein discloses "wherein at least one gradient value is used to determine whether or not to switch between a Boolean input mode and a functional input mode (col. 10, line 55 – col. 11, line 15). The sensor of Felsenstein is

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able to determine different directions and strengths of fluid flow for scrolling in different directions as well as more powerful directed breaths to determine clicks and other Boolean functions. It would be inherent that different gradient and sensor measurements would be used to determine the differences between click and scroll inputs based on different levels of fluid flow at different sensors.

Regarding claim 5, Felsenstein discloses including mouse clicks (col. 11, lines 10-16). This would at least include a single click action as this is the most common of all mouse click abilities.

Regarding claim 6, Felsenstein discloses providing scrolling functions on a computer screen (col. 10, line 55 – col. 11, line 9).

Regarding claim 10, the Examiner notes that this claim is a method related to claims 1 and 2. Felsenstein discloses a device that samples "a plurality of fluid current sensors at predetermined intervals to obtain a plurality of input values from the fluid current sensors (col. 8, lines 7-20)". Felsenstein then stores the input value data and transmits it to a processor (Fig. 3, element 301 receives data from the arrow labeled OUT; data is then transmitted between different processors for calculation and analysis, this would inherently require some sort of storage of the data in a memory or similar device; col. 8, line 21 – col. 9, line 7).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Felsenstein.

Regarding claim 2, Felsenstein does not expressly disclose storing input values from the sensors in a data buffer. Felsenstein discusses transmitting input values to processors for calculation and analysis (col. 8, line 21- col. 9, line 7). Felsenstein also discusses reading information from different sensors in a sequence (col. 8, lines 6-20) and that data could be filtered for noise and other actions (col. 9, lines 8-33). Although Felsenstein does not expressly disclose storing the values in a data buffer, the processors would store the input values in some sort of computer memory so that the information could be used in calculations and analysis by the processors. At the time of invention it would have been obvious to one skilled in the art that data buffer could be used to store the input information to be read by the processors for calculation and manipulation of the input values. Data buffers and other memory devices are well known in the art as circuit elements capable of storing input data from sensors for use with microprocessors. Therefore it would have been obvious to one skilled in the art

that a data buffer or similarly equivalent storage structure could be used as part of the sensors device of Felsenstein.

Regarding claim 7, Felsenstein discloses receiving sensor data from an array of plural fluid current sensors (col. 4, lines 14-31). Felsenstein also discloses that different arrangements and numbers of sensors could be used for the fluid flow sensors. Thus, it would be obvious to one skilled in the art that the system of Felsenstein could be changed to use three or any other number of fluid current sensors based on design choice. The choice would depend on size, cost and other factors when choosing the number and arrangement of fluid current sensors to be used.

Regarding claim 8, Felsenstein describes that various calculations can be performed on the input data provided from fluid current sensors to determine direction of flow and other values (col. 9, line 34 – col. 10, line 7). At the time of invention the selection of one type of calculations or a different type of calculations for determining information from a set of sensors would be based on the number and position of sensors within a device. Thus, it would be a matter of design choice to select the mathematical calculations used to determine X and Y axes of direction of fluid flow or any other type of useable data. The calculations would be selected based on the arrangement and number of sensors used within the entire system.

Regarding claim 9, Felsenstein discloses providing implementing mouse click functions based on specific fluid flow at predefined locations on the sensor (col. 11, lines 9-15). Directed fluid flow at different locations would require transferring fluid current flow from one sensor to a different sensor based on the area for specifying a

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mouse click function. At the time of invention it would have been obvious to one skilled in the art that directed fluid flow to different areas could be used to provide different types of input including different mouse click functions and actions. It would be a matter of design choice for one skilled in the art to define different mouse clicks based on fluid current flow on one sensor or a different sensor or a combination of sensors.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Volta (USPN: 4746913) discloses a single sensor sip/puff type of fluid sensor. Cromer, Jr. et al. (USPN: 5465026) and Beltz (USPN: 6801231) discloses more complex sip/puff arrangements of single and multiple fluid sensors for control of computer systems including mouse click functions.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven E. Holton whose telephone number is (571) 272-7903. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Steven E. Holton
Division 2629
September 28, 2007

AMR A. AWAD
SUPERVISORY PATENT EXAMINER

